

deep perched-water zones also are inferred from the oxygen- and hydrogen-isotope data and general water-quality parameter data discussed in the previous section. The presence of high tritium concentrations in PW-9 and USGS-074 might indicate the occurrence of a deep perched-water zone below TRA at a depth of approximately 200 ft that is currently related to the CWP and shows the residual influence of the former WWP and Warm Waste Retention Basins. Evidence for a lower and upper deep-perched zone is found at Wells PW-9 and USGS-073, located next to each other, but screened at different depths. Well PW-9 is screened from 140 to 200 ft bbls and the measured depth to water bbls is 176.45 ft. Well USGS-073 is screened from 62 to 127 ft bbls and the depth to water bbls is 87.48 ft. The large difference (90 ft) in water levels between PW-9 and USGS-073 is an indication of stratification and limited hydraulic communication in the deep perched water beneath TRA (Figure 34). This difference in water levels also can be seen in the *Remedial Investigation Report for the Test Reactor Area Perched Water System (Operable Unit 2-12)* (Dames and Moore 1992a). Large differences in head across short distances indicate the presence of rock and/or sediment with very low permeability. Layers and/or fingers of low permeability in the subsurface also could serve to isolate the geochemical character of waters found in different water-bearing zones. The large difference in water level between PW-9 and USGS-073 contrasts sharply with the small difference in water levels for the PW-8 and USGS-060 paired wells (Figure 35).

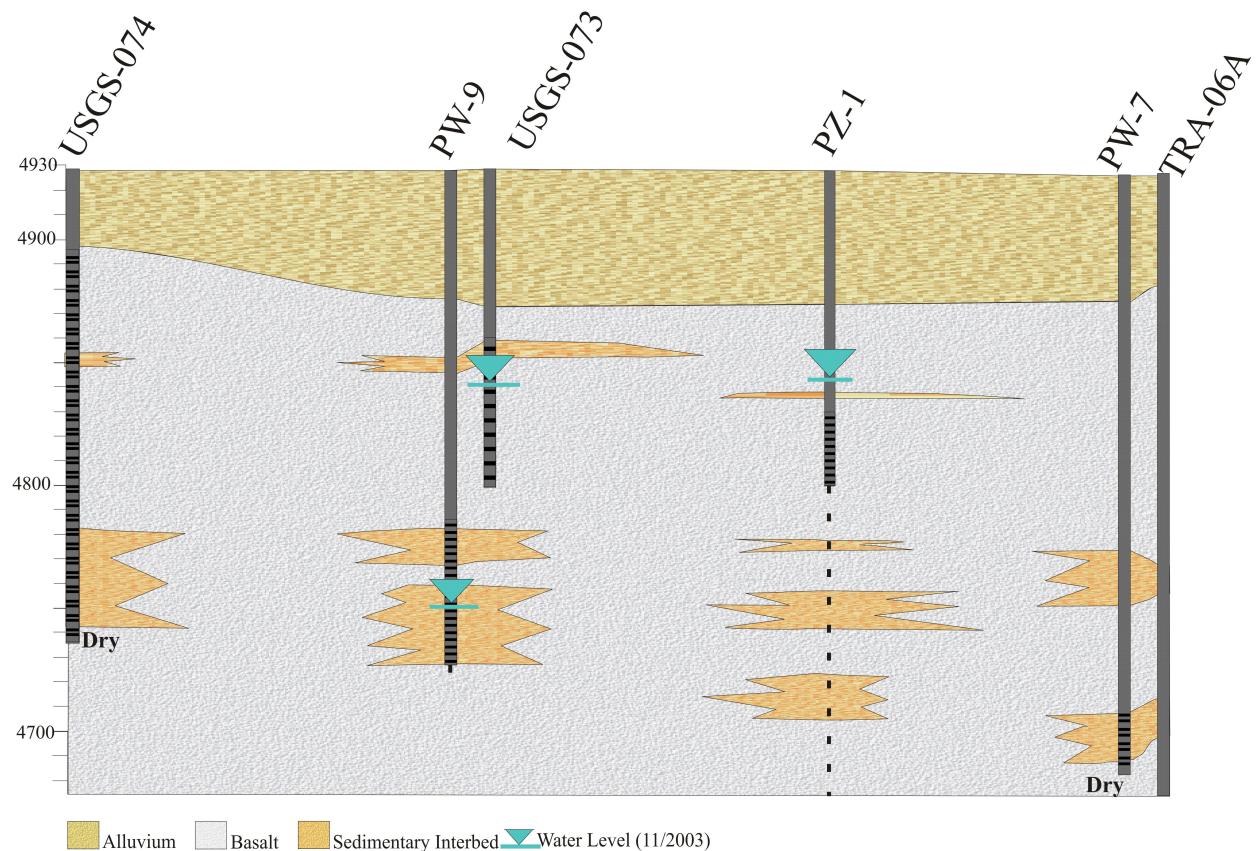


Figure 34. Cross-section from USGS-074 to TRA-06A.